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PETITION FOR REVIVAL OF AN APPLICATION FOR PA ABANDONED UNINTENTIONALLY UNDER 37 CFR 1.1	Docket Number (Optional) 22362-00008-US				
First named inventor: Johan Söderdahl					
Application No: 10/717,916-Conf. #7571 A	t Unit: 3683				
Filed: November 21, 2003 E:	xaminer: R. Si	conolfi			
Title: GAS-FILLED SPRING FOR A VEHICLE, SUCH AS A SUCH A GAS-FILLED SPRING	A MOTOR CYCL	E, AND VALVE FOR			
MS Petition Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450					
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The above-identified application became abandoned for failure to fil action by the United States Patent and Trademark Office. The date date of the period set for reply in the office notice or action plus any	of abandonment i	s the day after the expiration			
APPLICANT HEREBY PETITIONS FOR REVIVA	L OF THIS APPL	CATION			
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Petition fee					
X Small entity – fee \$ 750.00 (37 CFR 1.17(m)). See 37 CFR 1.27.	Applicant claims	mall entity status.			
Other than small entity – fee \$ (37 CFR	1.17(m))				
2. Reply and/or fee					
	(identify type	pe of reply):			
x has been filed previously on July 11, 2005					
is enclosed herewith. B. The issue fee and publication fee (if applicable) of \$					
has been paid previously on		•			
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Page 1 of 2					

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3. Termina	ıl disclaimer with disclaimer fee						
x	Since this utility/plant application was filed on or after J	une 8, 1995, no terminal disclaimer is required.					
	A terminal disclaimer (and disclaimer fee (37 CFR 1.20						
	or \$ for other than a small entity) is enclosed herewith (see PTO/SB/63).	disclaiming the required period of time					
filing of and T aband	EMENT: The entire delay in filing the required reply from of a grantable petition under 37 CFR 1.137(b) was uninter trademark Office may require additional information if the doment or the delay in filing a petition under 37 CFR 1.	entional. [NOTE. The United States Patent nere is a question as to whether either the					
subse	ections (III)(C) and (D))].						
Petitioner/ar	WARNING: oplicant is cautioned to avoid submitting personal information	in documents filed in a patent application that may					
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	Signature	/ Date					
	Brian J. Hairston	46,750					
	Typed or printed name	Registration Number, if applicable					
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Application Number 10/717,916

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Inventor: Johan Söderdahl

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(703) 872-9306

CONNOLLY BOVE LODGE & HUTZ LLP

Brian J. Hairston

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Attorney Dkt. #: 20260-00079-US

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Application Number 10/717,916

Patent Number

Inventor: Johan Söderdahl

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Brian J. Hairston

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Attorney Dkt. #:

20260-00079-US

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Application Number 10/717,916-Conf. #7571 Filed November 21, 2003 For GAS-FILLED SPRING FOR A VEHICLE, SUCH AS A MOTOR CYCLE, AND VALVE FOR SUCH A GA FILLED SPRING Art Unit 3683 Examiner R. Siconolfi This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application. The requested extension and fee are as follows (check time period desired and enter the appropriate fee below [Fee Small Entity Fee] X One month (37 CFR 1.17(a)(1)) \$120 \$60 \$120.00 Two months (37 CFR 1.17(a)(2)) \$450 \$225 \$ Three months (37 CFR 1.17(a)(3)) \$1020 \$510 \$ Four months (37 CFR 1.17(a)(4)) \$1590 \$795 \$ Five months (37 CFR 1.17(a)(5)) \$2160 \$1080 \$	Docket Number (Optional) 20260-00079-US		
GAS-FILLED SPRING FOR A VEHICLE, SUCH AS A MOTOR CYCLE, AND VALVE FOR SUCH A GAR FILLED SPRING Art Unit 3683 Examiner R. Siconolfi This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application. The requested extension and fee are as follows (check time period desired and enter the appropriate fee below Small Entity Fee X One month (37 CFR 1.17(a)(1)) \$120 \$60 \$120.00 Two months (37 CFR 1.17(a)(2)) \$450 \$225 \$ Three months (37 CFR 1.17(a)(3)) \$1020 \$510 \$ Four months (37 CFR 1.17(a)(4)) \$1590 \$795 \$			
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Applicant claims small entity status. See 37 CFR 1.27. A check in the amount of the fee is enclosed. Payment by credit card. Form PTO-2038 is attached. X The Director has already been authorized to charge fees in this application to a Deposit Account. X The Director is hereby authorized to charge any fees which may be required, or credit any overpayment Deposit Account Number 22-0185 . I have enclosed a duplicate copy of this sheet.	to		
applicant/inventor. assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96). attorney or agent of record. Registration Number x attorney or agent under 37 CFR 1.34.			
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July 11, 2005 Signature Date	u		
Brian J. Hairston (202) 331-7111			
Typed or printed name Telephone Number	nonn		
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if mother than one signature is required, see below. Total of forms are submitted.	,		



Docket No. AMENDMENT TRANSMITTAL LETTER 20260-00079-US Application No. Filina Date Examiner Art Unit 10/717,916-Conf. #7571 November 21, 2003 R. Siconolfi 3683 Applicant(s): Johan Söderdahl GAS-FILLED SPRING FOR A VEHICLE, SUCH AS A MOTOR CYCLE, AND VALVE FOR Invention: SUCH A GAS-FILLED SPRING TO THE COMMISSIONER FOR PATENTS Transmitted herewith is an amendment in the above-identified application. The fee has been calculated and is transmitted as shown below. **CLAIMS AS AMENDED** Highest Claims Remaining Number Number After Previously **Extra Claims** Present Amendment Paid Rate **Total Claims** 16 20 X independent 3 3 X Claims Multiple Dependent Claims (check if applicable) 0.00 Other fee (please specify): TOTAL ADDITIONAL FEE FOR THIS AMENDMENT: 0.00 Small Entity x Large Entity No additional fee is required for this amendment. 22-0185 Please charge Deposit Account No. in the amount of \$ A duplicate copy of this sheet is enclosed. A check in the amount of \$ to cover the filing fee is enclosed. Payment by credit card. Form PTO-2038 is attached. X The Director is hereby authorized to charge and credit Deposit Account No. as described below. A duplicate copy of this sheet is enclosed. Credit any overpayment. Charge any additional filing or application processing fees required under 37 CFR 1.16 and 1.17. Dated: July 11, 2005 Brian J. Hairston Attorney Reg. No.: 46,750 CONNOLLY BOVE LODGE & HUTZ LLP 1990 M Street, N.W., Suite 800 Washington, DC 20036-3425 (202) 331-7111



Docket No.: 20260-00079-US

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Johan Söderdahl

Application No.: 10/717,916

Confirmation No.: 7571

Filed: November 21, 2003

Art Unit: 3683

For: GAS-FILLED SPRING FOR A VEHICLE,

SUCH AS A MOTOR CYCLE, AND VALVE

FOR SUCH A GAS-FILLED SPRING

Examiner: R. Siconolfi

AMENDMENT IN RESPONSE TO NON-FINAL OFFICE ACTION

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

INTRODUCTORY COMMENTS

In response to the Office Action dated March 9, 2005 (Paper No. 1), please amend the above-identified U.S. patent application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

Docket No.: 20260-00079-US

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application.

1. (Currently Amended) A [[G]]gas-filled spring for a vehicle, said gas-filled spring operating that operates using gas and is primarily intended for a vehicle, wherein the said gas-filled spring comprises:

a cylinder; and

at least one piston that operates therein and divides the <u>an</u> internal space of the cylinder into a compression chamber and an expansion chamber; wherein the gas filled spring includes

an a self-pumping and self-balancing arrangement designed to ensure maintenance of the necessary quantities of gas and as well as gas pressure settings or differential pressures in the ehambers compression chamber and the expansion chamber in order to provide optimal spring function despite any gas leakage occurring, including gas leakage between the cylinder and the piston, and[[/or]] despite temperature variations occurring inside and outside the gas-filled spring, wherein the arrangement comprises:

one or more passages a first means for transferring gas between said compression chamber and said expansion chamber, said first means comprising at least one passage which is[[/are]] arranged between the compression chamber and the expansion chamber ehambers and is[[/are]] open in only in a one predetermined or adjustable position of the cylinder and the piston relative to one another, and wherein, each time the piston passes said predetermined or adjustable position during the movement of the piston in the internal space, the at least one passage[[(s)]] is thereby opened is/are designed to and permits at least one of the following: gas transfer between the chambers compression chamber

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and the expansion chamber, and/or pressure equalization in the compression chamber and the expansion chamber, and [[or]] differential pressure adjustment of the gas pressures in the chambers compression chamber and the expansion chamber;

a second means for loading the spring with gas and maintaining gas pressure in the spring; and

a third means for relieving air when gas pressure in the compression chamber or the expansion chamber rises over a predetermined value.

- 2. (Currently Amended) Gas-filled A gas-filled spring according to Claim 1, wherein the said predetermined position, here called the first position, is situated at a relatively short offset distance from the a fully expanded position of the gas-filled spring.
- 3. (Currently Amended) Gas-filled A gas-filled spring according to Claim 2, wherein, in the first said predetermined position, the gas pressure in the ehambers compression chamber and the expansion chamber is relatively low compared to the a maximum pressure of the ehambers compression chamber and the expansion chamber occurring in the functioning of the gas-filled spring.
- 4. (Currently Amended) Gas-filled A gas-filled spring according to Claim 1, wherein, in a force-stroke curve produced by the gas, gentle curve transitions are executed throughout the a stroke length range of the piston.
- 5. (Currently Amended) Gas-filled A gas-filled spring according to Claim 1, wherein the expansion chamber is connected to or comprises a non-return valve function assembly forming part of the arrangement and designed to deliver gas to the expansion chamber if the pressure in the expansion chamber is less than the atmospheric pressure or the a feed pressure of the gas-filled spring.

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6. (Currently Amended) Gas-filled A gas-filled spring according to Claim 5, wherein the non-return valve function assembly connects to the a surrounding atmosphere or atmospheric pressure if the gas volume or gas pressure is too low in the expansion chamber.

- 7. (Currently Amended) Gas-filled A gas-filled spring according to Claim 6, wherein the non-return valve function assembly connects to a gas volume or gas pressure-boosting element forming part of the arrangement if the gas volume or gas pressure is too low in the expansion chamber.
- 8. (Currently Amended) Gas-filled A gas-filled spring according to Claim 1, wherein, in said open predetermined position[[(s)]], gas can be discharged via a pressure-relief valve function assembly, should the gas pressure have risen in one or both of the chambers compression chamber and the expansion chamber due to an increase in temperature.
- 9. (Currently Amended) Gas-filled A gas-filled spring according to Claim 1, wherein the arrangement comprises an adjusting element designed to produce an external adjustment of at least one of the gas volume and[[/or]] gas pressure in one or both of the ehambers compression chamber and the expansion chamber.

10. (Canceled)

- 11. (Withdrawn) Valve forming part of a gas-filled spring that operates using gas and comprises a cylinder and a piston, that operates in the internal space of the former and divides the internal space into a compression chamber and an expansion chamber, wherein the gas in the chambers is subject to changes in volume and/or pressure, wherein the valve is designed, in a predetermined or set position of the cylinder and the piston relative to one another, to effect an exceptionally rapid gas discharge or pressure adjustment which counteracts said changes.
- 12. (Withdrawn) Valve according to Claim 11, wherein the valve comprises a spring-loaded piston, which, as a function of its longitudinal displacement, keeps a duct for the discharge of gas

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open or closed, and wherein said piston is arranged with or on diaphragms each designed to seal off a space in the valve and to afford the piston a suspension which is on the one hand laterally rigid and on the other pliable in the longitudinal direction of the piston.

- 13. (Withdrawn) Valve according to Claim 11, wherein the piston in said duct is provided with a seal arranged in a protected position.
- 14. (Withdrawn) Valve according to Claim 11, wherein a spring function producing the spring loading is adjustable or replaceable for setting of the desired regulating position.
- 15. (New) The gas-filled spring of claim 1, wherein said third means is connected to said at least one passage and wherein gas is relieved via said third means only when said piston passes said predetermined position.
- 16. (New) A gas-filled spring for a vehicle, said gas-filled spring operating using gas, wherein said gas-filled spring comprises:

a cylinder; and

at least one piston that operates therein and divides an internal space of the cylinder into a compression chamber and an expansion chamber;

a self-pumping and self-balancing arrangement designed to ensure maintenance of necessary quantities of gas as well as gas pressure settings or differential pressures in the compression chamber and the expansion chamber in order to provide optimal spring function despite any gas leakage occurring and despite temperature variations occurring inside and outside the gas-filled spring, wherein the arrangement comprises:

a first means for transferring gas between said compression chamber and said expansion chamber, said first means comprising at least one passage which is arranged between the compression chamber and the expansion chamber and is



open in a predetermined position of the cylinder and the piston relative to one another, wherein, each time the piston passes said predetermined position during movement of the piston in the internal space, the at least one passage is thereby opened and permits at least one of the following: gas transfer between the compression chamber and the expansion chamber, pressure equalization in the compression chamber and the expansion chamber, and differential pressure adjustment of gas pressures in the compression chamber and the expansion chamber and the expansion chamber;

a second means for loading the spring with gas and maintaining gas pressure in the spring; and

a third means for relieving gas when gas pressure in the compression chamber or the expansion chamber rises over a predetermined value, wherein said third means is connected to said at least one passage, and wherein gas is relieved via said third means only when said piston passes said predetermined position.



REMARKS

Claims 1-16 are pending. Claims 1-9 are amended. Claim 10 is canceled. Claims 11-14 are withdrawn from consideration for being directed to a non-elected group. Claims 15 and 16 are new.

Claim Amendments

Claim 1 has been amended to more precisely claim applicant's invention. Support for the language added to claim 1 is provided in the specification, for example, on page 6, line 35 through page 9, line 7 and in FIG. 1. Claims 5 and 8 have been amended to overcome rejections under 35 U.S.C. §112. Claims 1-9 have also been amended to improve readability and clarity. No new matter has been added.

Claim Rejections - 35 U.S.C. §112

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-10 under 35 U.S.C. §112, first paragraph, as being non-enabled. Claim 10 has been canceled, and the rejection of claim 10 is therefore moot. The term "adjustable" previously modifying the open position of the passage, has been removed from the claims. Thus, claims 1-9 satisfy the requirements of the first paragraph of 35 U.S.C. §112.

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 5-8 and 10 under 35 U.S.C. §112, second paragraph, as being indefinite.

Claim 10 has been canceled, and the rejection of claim 10 is therefore moot.

With respect to claim 5, the examiner stated that the scope of the language "connected to or comprises" is unclear. Applicant respectfully disagrees. Applicant respectfully submits that is clear that the expansion chamber in amended claim 5 may include a non-return valve assembly or may be connected to a non-return valve assembly. Such alternative language is not ambiguous.



Regarding claim 8, the rejected terms "said open position" have been amended to read

"said predetermined position."

In light of the above, claims 5-8 and 10 are definite under 35 U.S.C. §112, second paragraph.

Claim Rejections - 35 U.S.C. §102

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-4 under 35 U.S.C. §102(b) as being anticipated by Crouch (US Patent No. 259,634).

Claim 1, as amended herein, recites a gas-filled spring comprising:

a first means for transferring gas between said compression chamber and said expansion chamber, said first means comprising at least one passage which is arranged between the compression chamber and the expansion chamber and is open in only one predetermined position of the cylinder and the piston relative to one another, wherein, each time the piston passes said predetermined position during movement of the piston in the internal space, the at least one passage is thereby opened and permits at least one of the following: gas transfer between the compression chamber and the expansion chamber, pressure equalization in the compression chamber and the expansion chamber, and differential pressure adjustment of the gas pressures in the compression chamber and the expansion chamber and the expansion chamber and the

a second means for loading the spring with gas and maintaining gas pressure in the spring; and

a third means for relieving air when gas pressure in the compression chamber or the expansion chamber rises over a predetermined value.

The device of Crouch does not include a second means for loading the spring with gas and maintaining gas pressure in the spring, or a third means for relieving air when gas pressure in the compression chamber or the expansion chamber rises over a predetermined value.

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Additionally, Crouch does not teach a passage which is arranged between the compression chamber and the expansion chamber and is open in only one predetermined position of the cylinder and the piston relative to one another (emphasis added). For at least these reasons, claims 1-4 are allowable over Crouch.

Claim Rejections - 35 U.S.C. §103

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 5, 6, 8 and 9 under 35 U.S.C. §103(a) as being unpatentable over Crouch in view of Ingham (U.S. Patent No. 1,151,595).

Crouch fails to teach the spring recited in claim 1 for the reasons stated above. Ingham fails to disclose or suggest a means for loading the spring with gas and maintaining gas pressure in the spring. Ingham also fails to teach or suggest a passage which is arranged between the compression chamber and the expansion chamber and is open in only one predetermined position of the cylinder and the piston relative to one another. Therefore, claims 5-8 are allowable over the combination of Crouch and Ingham.

Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 7 under 35 U.S.C. §103(a) as being unpatentable over Crouch in view of Ingham, and further in view of Tsuchiya et al. (U.S. Patent No. 4,693,454).

Crouch and Ingham do not teach the invention of claim 6 for the reasons provided above. Tsuchiya et al. also fails to teach or suggest a passage which is arranged between the compression chamber and the expansion chamber and is open in only one predetermined position of the cylinder and the piston relative to one another. Therefore, the proposed combination of Crouch, Ingham and Tsuchiya et al. does not teach or suggest every element of claim 7. Claim 7 is therefore allowable.

New Claims

New claim 15 depends from claim 1 and is therefore allowable.

Docket No.: 2026@-00979-US

New claim 16 recites:

A gas-filled spring for a vehicle, said gas-filled spring operating using gas, wherein said gas-filled spring comprises:

a cylinder;

at least one piston that operates therein and divides an internal space of the cylinder into a compression chamber and an expansion chamber; and

a self-pumping and self-balancing arrangement designed to ensure maintenance of necessary quantities of gas as well as gas pressure settings or differential pressures in the compression chamber and the expansion chamber in order to provide optimal spring function despite any gas leakage occurring and despite temperature variations occurring inside and outside the gas-filled spring, wherein the arrangement comprises:

a first means for transferring gas between said compression chamber and said expansion chamber, said first means comprising at least one passage which is arranged between the compression chamber and the expansion chamber and is open in a predetermined position of the cylinder and the piston relative to one another, wherein, each time the piston passes said predetermined position during movement of the piston in the internal space, the at least one passage is thereby opened and permits at least one of the following: gas transfer between the compression chamber and the expansion chamber, pressure equalization in the compression chamber and the expansion chamber, and differential pressure adjustment of gas pressures in the compression chamber and the expansion chamber and the expansion chamber and the expansion chamber and the expansion

a second means for loading the spring with gas and maintaining gas pressure in the spring; and



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a third means for relieving gas when gas pressure in the compression chamber or the expansion chamber rises over a predetermined value, wherein said third means is connected to said at least one passage, and wherein gas is relieved via said third means only when said piston passes said predetermined position.

Claim 16 is allowable over the cited prior art at least because the prior art fails to teach or suggest: at least one passage which is arranged between the compression chamber and the expansion chamber and is open in a predetermined position of the cylinder and the piston relative to one another; and a means for relieving gas that is connected to the passage, wherein gas is relieved via said third means only when said piston passes said predetermined position, as recited in claim 16.

Conclusion

In view of the above amendment, applicant believes the pending application is in condition for allowance.

If a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 20260-00079-US from which the undersigned is authorized to draw.

Dated: July 11, 2005

Respectfully submitted,

Brian J. Hairston

Registration No.: 46,750

CONNOLLY BOVE LODGE & HUTZ LLP

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15/15

REASON FOR ERROR E-1) HANG UP OR LINE FAIL E-3) NO ANSWER

E-2) BUSY E-4) NO FACSIMILE CONNECTION

FAX TRANSMISSION

DATE:

PTO IDENTIFIER:

Application Number 10/717,916

Patent Number

Inventor: Johan Söderdahl

MESSAGE TO: US Patent and Trademark Office

FAX NUMBER: (703) 872-9306

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PAGES (including Cover Sheet):

CONTENTS:

Amendment in Response to Non-Final Office Action

Fee Transmittal (I page); Petition for Extension of Time (3 pages);

Authorization to charge Deposit Account \$40 recordation fee; and

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